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10/579,484

08/02/2006

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EXAMINER

ABDALLA, KHALID M

ART UNIT

PAPER NUMBER

4173

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,484	<b>Applicant(s)</b> OGASAHARA ET AL.	
	<b>Examiner</b> KHALID ABDALLA	<b>Art Unit</b> 4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,40-42,66-71 and 89-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 40-42, 66-71, 89-91 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/16/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This application has been examined .Claims 1,3,4, 40-42, 66-71and 89-91 are pending in this application.

#### ***Priority***

2. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 371 as follows:

Priority is over 30 months .US filling date is 08/02/2006. Foreign priority of the PCT was filled on 11/17/2003.

#### **Information Disclosure Statement**

3. The Examiner has considered the references listed on the Information Disclosure statement submitted on 05/16/2006 (see attached PTO-1449.

#### **Drawings**

4. The examiner contends that the drawings submitted on 05/16/2006 are acceptable for examination proceedings

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 4, 40-42, and 89-91 are rejected under 35 U.S.C. 102(e) as being anticipated by Teruhi et al (US 20030072269 A1) hereinafter referred to as Teruhi

Regarding claim 1, Teruhi discloses a communication system in which three or more base nodes communicate through a plurality of communication media each formed of at least one relay node (data transmission control method which is used at the source node on the network to send therefrom data to the destination node see [0009] also FIG. 2 showing connections of a multimedia data delivery system using the RTP/RTCP scheme between source and destination nodes see [0040]), wherein said three or more base nodes include an assuming unit which handles a plurality of ports connected to said plurality of communication (transmission unit, which sets up multiple communication routes from the source node to the destination node on the network see [0012]) media among ports belonging to said base node as one virtual port to assume said plurality of communication media to be one node (the destination node processes the received packets, regarding a set of multiple routes as a single virtual route therefore inherent source base node see [0087]).

Regarding claim 3, Teruhi discloses the communication system according to claim

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1, wherein said assuming unit includes a forwarding data base which registers, for one destination ( the transmission unit, which sets up multiple communication routes from the source node to the destination node see [0012] and FIG. 19B showing a flowchart the destination node obtains information from the sender report see [0035]). a plurality of pieces of forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination (the transmission unit, which sets up multiple communication routes from the source node to the destination node on the network and distributes and sends data see [0012], also the UDP destination port number 52 in FIG. 7 according to the application used so that the router 21 outputs packets to the specified ports according to the individual destination port numbers see[0053]also see FIG.7 AND FIG.18).

Regarding claim 4, Teruhi discloses the communication system according to claim 1, wherein said assuming unit includes a port mapping table which correlates at least one port of said base node with one virtual port ( the destination node processes the received packets, regarding a set of multiple routes as a single virtual route , multiple route inherent multiple routing table to be map to specific destination see [0087] ), and a forwarding data base which registers at least one said virtual port in forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination ( the UDP destination port number 52 in FIG. 7 according to the application used so that the router 21 outputs packets to the specified

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ports according to the individual destination port numbers see[0053]also see FIG.7 AND FIG.18) .

Regarding claim 40, Teruhi discloses a node as a base communicating with each other through a plurality of communication media each formed of at least one relay node in a communication system (data transmission control method which is used at the source node on the network to send therefrom data to the destination node see [0009] also FIG. 2 showing connections of a multimedia data delivery system using the RTP/RTCP scheme between source and destination nodes see [0040]), comprising an assuming unit which handles a plurality of ports connected to said plurality of communication media among ports belonging to each of three or more nodes as a base as one virtual port to assume said plurality of communication media to be one node ( the destination node processes the received packets, regarding a set of multiple routes as a single virtual route therefore inherent source base node see [0087] ).

Regarding claim 41, Teruhi discloses the base node according to claim 40, wherein said assuming unit includes a forwarding data base which registers, for one destination ( the transmission unit, which sets up multiple communication routes from the source node to the destination node see [0012] and FIG. 19B showing a flowchart the destination node obtains information from the sender report see [0035]), a plurality of pieces of forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination (the transmission unit, which sets

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up multiple communication routes from the source node to the destination node on the network and distributes and sends data see [0012], also the source node 11 extracts the route quality information from RTCP-RR received from the destination node 12 see [0057] also see FIG.2).

Regarding claim 42, Teruhi discloses the base node according to claim 40, wherein said assuming unit includes a port mapping table which correlates at least one port of said base node with one virtual port ( the destination node processes the received packets, regarding a set of multiple routes as a single virtual route , multiple route inherent multiple routing table to be map to specific destination see [0087] ), and a forwarding data base which registers at least one said virtual port in forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination ( the UDP destination port number 52 in FIG. 7 according to the application used so that the router 21 outputs packets to the specified ports according to the individual destination port numbers see[0053]also see FIG.7 AND FIG.18).

Regarding claim 89, Teruhi discloses a computer including a network interface card (FIG. 20 illustrates an example of the construction of the data transmission unit, which is basically similar to common computers. The data transmission unit comprises CPU (Central Processing Unit) 11A, a RAM (Random Access Memory) 11B, a hard disk 11C as large-capacity storage, a display 11E, and a

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network interface card 11D connected to the edge router 21 see [0160] ). having the function of communicating with each other through a plurality of communication media each formed of at least one relay node in a communication system (data transmission control method which is used at the source node on the network to send therefrom data to the destination node see [0009] also FIG. 2 showing connections of a multimedia data delivery system using the RTP/RTCP scheme between source and destination nodes see [0040] ), wherein

said network interface card includes an assuming unit which handles a plurality of ports connected to said plurality of communication media among ports belonging to said network interface card (FIG.20 shows a network interface card 11D connection) three or more nodes as a base as one virtual port to assume said plurality of communication media to be one node ( transmission unit, which sets up multiple communication routes from the source node to the destination node on the network see [0012] ).

Regarding claim 90, Teruhi discloses the computer according to claim 89 (FIG. 20 illustrates an example of the construction of the data transmission unit, which is basically similar to common computers. The data transmission unit comprises CPU (Central Processing Unit) 11A, a RAM (Random Access Memory) 11B, a hard disk 11C as large-capacity storage, a display 11E, and a network interface card 11D connected to the edge router 21 see [0160] ), wherein said assuming unit of said network interface card (FIG.20 shows a network interface card 11D connection) includes a forwarding data base which registers, for one destination, a plurality of pieces of forwarding



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information for transferring a data frame transmitted from a certain transmission source to a predetermined destination (the transmission unit, which sets up multiple communication routes from the source node to the destination node on the network and distributes and sends data see [0012], also the UDP destination port number 52 in FIG. 7 according to the application used so that the router 21 outputs packets to the specified ports according to the individual destination port numbers see[0053]also see FIG.7 AND FIG.18).

Regarding claim 91, Teruhi discloses the computer according to claim 89 (FIG. 20 illustrates an example of the construction of the data transmission unit, which is basically similar to common computers. The data transmission unit comprises CPU (Central Processing Unit) 11A, a RAM (Random Access Memory) 11B, a hard disk 11C as large-capacity storage, a display 11E, and a network interface card 11D connected to the edge router 21 see [0160] ), wherein said assuming unit of said network interface card includes a port mapping table which correlates at least one port with one virtual port ( the destination node processes the received packets, regarding a set of multiple routes as a single virtual route , multiple route inherent multiple routing table to be map to specific destination see [0087] ), and a forwarding data base which registers at least one said virtual port in forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination ( the UDP destination port number 52 in FIG. 7 according to the application used so that the router 21 outputs packets to the specified ports according to the individual destination port numbers

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see[0053]also see FIG.7 AND FIG.18).

92 - 113 (canceled).

6. Claims 66-71 are rejected under 35 U.S.C. 102(e) as being anticipated by Abdollahi et al (US 20030035425 A1) hereinafter referred to as Abdollahi

Regarding claim 66, Abdollahi discloses a communication control program executed (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software for achieving the functions according to the present invention. FIG. 3 shows a manager node, the manager node is implemented as a PC compatible computer 300 see [0058]) on a node as a base communicating with each other through a plurality of communication media each formed of at least one relay node in a communication system (communication networks, that carry digital information from a source to multiple remote sites. At least one of the remote site includes manageable nodes, such as router nodes see [0014]), which comprises an assuming function of assuming said plurality of communication media to be one node by handling a plurality of ports connected to said plurality of communication media among ports belonging to each of three or more nodes as a base as one virtual port node a signal is transmitted from a single location to multiple remote sites see [0043]).

Regarding claim 67, Abdollahi discloses the communication control program

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according to claim 66 (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software see [0058]). which comprises the function of registering, for one destination, a plurality of pieces of forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination in a forwarding data base (the manager node 212 determines (via, e.g., internal records), the manager node 212 stores a table of defined groups/subgroups and session identifiers associated with them see [0111], also see the manager node does the following for each given node of the group. The manager node transmits a packet containing a network layer header, including an address corresponding to the given node see [0033]).

Regarding claim 68, Abdollahi discloses the communication control program according to claim 66 (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software see [0058])., which comprises the function of correlating at least one port of said base node with one virtual port in a port mapping table, and registering at least one said virtual port in forwarding information for transferring a data frame transmitted from a certain transmission source to a predetermined destination in a forwarding data base (the manager node 212 determines (via, e.g., internal records), the manager node 212 stores a table of defined groups/subgroups and session identifiers associated with them see [0111], also see the manager node does the following for each given node of the group. The manager node

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transmits a packet containing a network layer header, including an address corresponding to the given node see [0033]).

Regarding claim 69, Abdollahi discloses the communication control program (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software see [0058]). according to claim 66, which comprises the function of, when transmitting a data frame to said communication medium having a different frame format, transmitting said data frame with header (An IP header includes a source address, which is the IP address of the node that transmitted the packet, and a destination address, which is the address assigned to the node or nodes which are to receive the packet see [0053]). information of the frame format of said communication medium added and when receiving a data frame from said communication medium, receiving said data frame with the header information of the frame format of said communication medium removed (the manager node 212 also transmits a command to a given router node 230 to cause the router node 230 to close the session of the group or subgroup from which the router node 230 was removed. Thereafter, the router node 230 will ignore packets containing the above session identifier of the group or subgroup from which it was removed see [0082]).

Regarding claim 70, Abdollahi discloses the communication control program (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software see [0058]) according to any one of claim 66 to claim 69,

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which comprises the function of transmitting and receiving a keep alive frame to/from each other to obtain a communication state of the communication system (In step S212, the manager node 212 illustratively periodically transmits an SMMP "keep-alive" message for each open session to the respective router node 230 or group/subgroup of router nodes 230 corresponding to the message see [0112]).

Regarding claim 71, Abdollahi discloses the communication control program (The manager node 212 may be implemented as a PC compatible computer on which is installed suitable software see [0058]) according to claim 70, wherein said keep alive frame is broadcast by said relay node forming said plurality of communication media with a destination address recognized as unknown by said relay node forming said plurality of communication media recited (An SMMP keep-alive message causes each router node 230 to which the message is destined, to maintain the session as open and not time out the session. In other words, the keep-alive message causes the router node 230 to reset its internal timer for the session and not close it. keep-alive and auto-discover can also be transmitted from the manager node 212 multiple times to ensure that they are received See [0112]).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Saleh et al (US 20020054572 A1) Method for routing information over a network.

Liu (US 7355975 B2) Method and apparatus for group communication with end-to-end reliability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is (571)270-7526. The examiner can normally be reached on MONDAY THROUGH FRIDAY 7 AM TO 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JINHEE LEE can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. A./

Examiner, Art Unit 4173

/Jinhee J Lee/  
Supervisory Patent Examiner, Art  
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